

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) An apparatus for performing instant messaging (IM) under a first protocol, said apparatus comprising:

a first device;

a second device implementing a second protocol, wherein [[at]] said first protocol and said second protocol comprise a telephony application protocol and a protocol supporting peer to peer services and at least one of said first device and said second device is a telephone set implementing said telephony application protocol and having a keypad having a fixed number of key buttons and a display;

a protocol converter to convert messages between said first device and said second device to/from ~~between~~ said first protocol from/to [[and]] said second protocol;

a register to register said first device and said second device; and

a map to map a first client to said first device and a second client to said second device, said peer to peer services including Instant Messaging (IM), wherein full IM capability is provided to said telephone set, full IM capability including creating a buddy list.

2. (original) The apparatus of claim 1 wherein said first protocol is a Session Initiation Protocol (SIP).

3. (currently amended) The apparatus of claim 2 wherein said second protocol is a Computer Supported Telephony Application (CSTA) and said protocol converter converts between CSTA and SIP/SIMPLE.

4. (previously presented) The apparatus of claim 3 wherein said first device is a SIP device, managing and determining presence information for a respective IM user.

5. (original) The apparatus of claim 4 wherein said first device is a Personal Computer (PC).
6. (original) The apparatus of claim 4 wherein said first device is a Personal Digital Assistant (PDA).
7. (currently amended) The apparatus of claim 3 wherein said second device is said telephone set; [[and]] said telephone set is a digital telephone, instant messaging being displayed on said display; and said protocol converter further manages said full IM capability provided to said digital telephone.
8. (original) The apparatus of claim 7 wherein said digital telephone is connected through a telephonic switch.
9. (currently amended) The apparatus of claim 8 wherein said telephonic switch is a Private Branch Exchange (PBX) connected to said protocol converter using said CSTA protocol and full IM capability further includes composing messages, retrieving and responding to messages.
10. (previously presented) The apparatus of claim 3 wherein said first device is a CSTA device.
11. (previously presented) The apparatus of claim 10 wherein said first device is said telephone set and said telephone set is a digital telephone, wherein at least one key button is a programmable key.
12. (previously presented) The apparatus of claim 11 wherein said digital telephone is connected through a telephonic switch monitoring said key buttons and having full control of said display.
13. (currently amended) The apparatus of claim 12 wherein said telephonic switch is a Private Branch Exchange (PBX) connected to said protocol converter using said CSTA protocol.

14. (currently amended) A method for supporting Instant Messaging (IM) in digital telephones, comprising the steps of:

registering a first protocol digital telephone set including a display and a keypad having a fixed number of key buttons;

converting messages from said first protocol digital telephone set in said first protocol to messages in a second protocol, wherein at said first protocol is a telephony application protocol and said second protocol supports peer to peer services including Instant Messaging (IM);

mapping an IM identity of a client to said digital telephone set; and

communicating an instant message in one or more converted messages to or from said digital telephone set, instant messaging being displayed on said display and full IM capability is provided to said first protocol digital telephone set, full IM capability including creating a buddy list.

15. (previously presented) The method of claim 14 further comprising the steps of:

registering a second device; wherein said mapping step further maps an IM identity of a second client to said second device and said instant messaging includes communicating an instant message between said first digital telephone set and said second device.

16. (previously presented) The method of claim 15 wherein said IM identity of said second device is a personal computer (PC); and wherein said mapping step further maps a second client to said PC and said instant messaging includes communicating an instant message between said first digital telephone set and said PC.

17. (currently amended) The method of claim 15 wherein said second device is a Computer Supported Telephony Application (CSTA) digital telephone set; and wherein said converting step also converts messages from said CSTA device to SIP/SIMPLE messages for a SIP device, said mapping step further maps said IM identity of said second client to said second digital telephone set and said communicating step further includes communicating an instant message between said first and said second digital telephone sets.

18. (previously presented) A method according to claim 14, wherein at least one key button is a programmable key, said method further comprising the step of configuring said at least one key button as an Instant Messaging (IM) key for a digital telephone set.

19. (original) A method according to claim 18 further comprising the step of establishing the IM connection by pressing said instant messaging key.

20. (previously presented) A method according to claim 14, instant messaging further comprising sending a notification to said digital telephone set when a new instant message arrives, said digital telephone set displaying a new instant message notification in response.

21. (previously presented) A method according to claim 14 wherein instant messaging is accomplished while the digital telephone set is off-hook.

22. (previously presented) A method according to claim 14 wherein instant messaging includes composing and displaying instant messages using the standard key buttons and display space of said digital telephone set.

23. (previously presented) A method according to claim 14 wherein instant messaging includes sending a notification to said digital telephone set when a request to add said digital telephone set client to the contact list of another instant messaging client is received.

24. (previously presented) A method according to claim 14 wherein instant messaging includes using said digital telephone set to sign-in and sign-out for instant messaging services.

25. (previously presented) A method according to claim 14 wherein instant messaging includes using said digital telephone set to change the on-line and off-line status of said digital telephone set.

26. (original) A method according to claim 14 wherein said step of communicating includes using said digital telephone set to query the status of a contact list member.

27. (original) A method according to claim 14 wherein said step of communicating includes determining the presence status of said digital telephone based on call activity of said digital telephone.

28. (previously presented) A method according to claim 14 wherein instant messaging includes sending stored common replies to other instant messaging clients.

29. (original) A method according to claim 28 wherein at least one of said stored common replies includes at least one custom data field.

30. (previously presented) A method according to claim 14 wherein instant messaging includes sending stored common messages to other instant messaging clients.

31. (original) A method according to claim 30 wherein at least one of said stored common messages includes at least one custom data field.

32. (currently amended) A method for performing instant messaging (IM) under a first protocol, said method comprising the steps of:

identifying a first device;

implementing a second protocol in a second device, wherein said first protocol and said second protocol comprise a telephony application protocol and a protocol supporting peer to peer services including Instant Messaging (IM) and at least one of said first device and said second device is a telephone set implementing said telephony application protocol and having a display and a keypad having a fixed number of key buttons;

converting messages between said first device and said second device to/from between
said first protocol from/to [[and]] said second protocol;

registering said first device and said second device; and

mapping a first client to said first device and a second client to said second device,
wherein full IM capability is provided to said telephone set, full IM capability including creating a buddy list.

33. (original) The method of claim 32 wherein said first protocol is a Session Initiation Protocol (SIP).

34. (currently amended) The method of claim 33 wherein said second protocol is a Computer Supported Telephony Application (CSTA) and converting said messages converts between CSTA and SIP/SIMPLE.

35. (previously presented) The method of claim 34 wherein said first device is a Session Initiation Protocol (SIP) device, managing and determining presence information for a respective IM user.

36. (original) The method of claim 35 wherein said first device is a Personal Computer (PC).

37. (previously presented) The method of claim 34 wherein said second device is said telephone set and said telephone set is a digital telephone, instant messaging being displayed on said display.

38. (original) The method of claim 37 wherein said digital telephone is connected through a telephonic switch.

39. (currently amended) The method of claim 38 wherein said telephonic switch is a Private Branch Exchange (PBX) connecting to a unit converting said messages using CSTA, and full IM capability includes further includes composing messages, retrieving and responding to messages.

40. (previously presented) The method of claim 34 wherein said first device is a CSTA device.

41. (previously presented) The method of claim 40 wherein said first device is said telephone set and said telephone set is a digital telephone, wherein at least one key button is a programmable key.

42. (currently amended) An apparatus for supporting Instant Messaging (IM) in digital telephones, comprising:

a register to register a first protocol digital telephone set including a display and a keypad having a fixed number of key buttons;

a converter to convert messages in said first protocol to messages in a second protocol, wherein said first protocol is a telephony application protocol and said second protocol supports peer to peer services including Instant Messaging (IM);

a map to map an IM identity of a client to said digital telephone set; and

a communication device to instant message with said digital telephone set, instant messaging being displayed on said display and full IM capability is provided to said first protocol digital telephone set, full IM capability including creating a buddy list.

43. (currently amended) The apparatus of claim 42 further comprising:

a register to register a second device; wherein said converter manages said full IM capability provided to said first protocol digital telephone, said map further maps an IM identity of a second client to said second device and said communication device further instant messages between said first protocol digital telephone set and said second device.

44. (previously presented) The apparatus of claim 43 wherein said second device is a personal computer (PC); and wherein said map further maps said IM identity of said second client to said PC and said communication device further instant messages between said first digital telephone set and said PC.

45. (currently amended) The apparatus of claim 43 wherein said second device is a first protocol digital telephone set; and wherein said converter also converts messages in said first protocol from said first protocol device to messages in said second protocol for said second protocol device, said map further maps said IM identity of said second client to said second digital telephone set and said communication device further instant messages between said first and said second digital telephone sets.

46. (currently amended) An apparatus according to claim 43 [[42]], wherein at least one key button is a programmable key programmed as an Instant Messaging (IM) key configured by said converter to initiate instant messaging in a digital telephone set and said converter converts messages between CSTA and SIP/SIMPLE.